

The Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft was used to collect airborne infrared (IR) images and data for the West Fertilizer fire near West, Texas. The ASPECT detected ammonia at volumetric concentration of 6 to 10 part per million (ppm) by volume. The ammonia concentration is less than the Acute Exposure Guideline Level - 1 (AEGL-1) for exposure up to 8 hours of 30 ppm. The AEGL-1 is the airborne concentration, expressed as ppm of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort or irritation. However, the effects are not disabling and are transient and reversible upon cessation of exposure. The airborne concentration of ammonia detected by ASPECT at approximately 800 to 1000 feet above ground level up to a ½ mile downwind from the facility. Inhaling of ammonia can cause rapid onset of a burning sensation in the eyes, nose and throat according to the Agency for Toxic Substances and Disease Registry (ATSDR) Medical Management Guidelines (MMGs). In addition, the MMG noted that upper airway swelling may lead to airway obstruction.